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## **Errata : Exotic characteristic classes and subfoliations**

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## ERRATA

### "EXOTIC CHARACTERISTIC CLASSES AND SUBFOLIATIONS"

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Mémoire de Luis A. CORDERO et P.M. GADEA

We considered a differentiable manifold  $M$  equipped with a pair of foliations,  $F_1$  and  $F_2$ , and such that every leaf of  $F_2$  is foliated by leaves of  $F_1$  (briefly,  $F_1$  is a subfoliation of  $F_2$ ). As D.B. Fuks pointed out in MR 53 # 6584, corollary 5.2 is incorrect as the following counter-example shows: take an arbitrary foliation for  $F_2$  and the foliation with one-point leaves for  $F_1$ .

In fact, proposition 5.1 asserts the commutativity of the following diagram

$$\begin{array}{ccc}
 H^*(\hat{W}_1(J_1, J'_1)) & \xleftarrow{\bar{i}^*} & H^*(\hat{W}_2(J_2, J'_2)) \\
 \rho_{\nabla\tilde{\nabla}}^* \downarrow & \nearrow \rho_{\nabla, \tilde{\nabla}}^* & \downarrow \eta^* \\
 H^*(M; \mathbb{R}) & \xleftarrow{\bar{\rho}_{\nabla, \tilde{\nabla}}^*} & H^*(\hat{W}_2(\bar{J}_2, J'_2))
 \end{array}$$

where  $\rho_{\nabla\tilde{\nabla}}^*$  and  $\bar{\rho}_{\nabla, \tilde{\nabla}}^*$  are the characteristic homomorphisms for  $F_1$  and  $F_2$  respectively and  $\rho_{\nabla, \tilde{\nabla}}^*$  is the characteristic homomorphism introduced in theorem 4.5; hence, a consequence of proposition 5.1 is simply

$$\text{Im } \rho_{\nabla, \tilde{\nabla}}^* \subset (\text{Im } \rho_{\nabla\tilde{\nabla}}^*) \cap (\text{Im } \bar{\rho}_{\nabla, \tilde{\nabla}}^*)$$

and this gives a topological obstruction to  $F_1$  being a subfoliation of  $F_2$ .